



## Village Locals Reflect: Moving Was Best Flood Protection

### Full Mitigation Best Practice Story

#### *Crawford County, Wisconsin*

**Soldiers Grove, WI** – In August 2007, the biggest flood in the history of Soldiers Grove came roaring through the village. The Kickapoo River quickly topped the levees, and the water didn't recede for about 10 days. Years earlier, the center to the town had been moved.



Residents experienced floods in 1907, 1912, 1917, 1935, 1951, and the "big one" in 1978. From 1969 to 2007, the state had 25 nationally declared flood disasters in 38 years. The flood of record in 2007 inflicted the worst damage in the state just 10 miles downstream in Gays Mills.

"The Kickapoo can turn into a wild river. I don't know how we escaped all the floods without loss of life. We had a lot of good people, fire crews, and emergency management crews out there working evacuations and rescues," stated Jerry Moran, Crawford County Sheriff.

"Each time there was very little advance warning. People woke up at night with three to four inches of water already in their homes," continued Moran. Moran has lived in Soldiers Grove for 37 years. His dad and mother were dairy farmers who retired to the village.

Local debate about what to do about the flooding began to swell in the mid-60s when the U.S. Army Corps of Engineers proposed an upstream dam and a new levee for the village. The costs to the village exceeded their ability to pay. The unprecedented move of their downtown, surrounded on three sides by the river, to higher ground began to make financial sense.

"Moving the town took a lot of planning and a lot of groups working together. It got to the point it wasn't feasible to stay there any longer," said John Young, a local merchant since 1960.

Environmentalists were fighting against the Corps over the dam, and the maintenance of the levee was going to cost the village nearly all of their annual tax revenues. By 1975, a small Comprehensive Employment and Training Act grant paid for a relocation coordinator. Thomas Hirsch was hired as the relocation coordinator.

"Soldiers Grove was faced with a dilemma," Hirsch says. "Either the state was going to impose floodplain zoning on them, or the village needed to move forward on the relocation plan." By 1976 the village took the unprecedented move of passing a resolution that supported relocation to avoid future flood disasters.

The flood of July 1978 made things happen. "At one point, during the flood of 1978, I was on the bridge as it swayed. I saw instant waterfalls at the end of the street and butane tanks floating up and down. It was really a mess," recalled Young whose store flooded and basement inventory was a total loss.

"I did not necessarily favor the move at first," said Moran, whose dad was president of the village in 1978. "The move meant a lot of money and debt for the village. The 1978 flood completely changed my mind. There were close to 40 businesses down there that were flooded out and about 10 to 12 homes were really destroyed."

On July 7, 1978 a federal disaster declaration made federal funds available to flood-proof the village. Local planners convinced state and federal officials moving the town was the best flood-proofing method and eventually received their first federal grant of \$900,000 from HUD's Community Development Block Grant to get the project moving. This included acquiring flood prone properties, clearing the area, demolishing old properties, and rebuilding the town uphill.

By 1983 the \$6 million relocation project was done. According to Hirsch, in 1979 the village wanted to "help the US reduce its dependency on foreign oil" so the village incorporated solar heating in the new buildings, subsequently dubbed "Solar Village."

"Since the buildings have solar heating, they are insulated a lot better. If I get a good day of sun, I'll get three days of heat. It's clean. I've never had to paint because of dirt from the system," Young noted.

"It took the whole area a while to get use to the solar look. In the old town people would drive downtown, park their cars, and watch the people on Wednesday and Saturday nights walk up and down the streets. Here it's more like a shopping mall; you have to stop here, get in the car and drive over to the next place," he continued.

Locals have witnessed a moderate population growth to over 600 with new businesses and the expansion of older ones. "If Soldiers Grove stayed in the floodplain, it would have been a stagnant community; it would have still existed, but stagnant. All the new businesses would have not happened if we were still over there," Moran stated.

In 2007, Soldiers Grove's central riverside municipal park and campgrounds, where the downtown once stood, received little flood damage. The "Solar Village" uphill was unscathed.

"Common sense tells me the move was the right thing to do. All we have to do is drive over to Gays Mills and look at what they are facing, the same things we faced years ago. They are having village meetings to decide what to do to help reduce flood impact," said Moran.

"The recent August 2007 flood devastation reinforced that we did the right thing. I don't ever want to go through another flood like 1978," added Young.

"Would I recommend moving the town? Yes I would. I said that the record flood of 1978 would not happen again, and it did. I guess it will happen again, and you don't want your future generations going through that over and over," stated Moran. "Two 100-year-floods (each with a 1.0 percent chance of occurring in any given year) are not supposed to happen in a life time. We had two, 29 years apart."

"I'm proud to say I was part of it all. It was a huge project for a small community, and it was successful," Moran explained. "What else can you ask for?"

#### Activity/Project Location

Geographical Area: **Single County in a State**

FEMA Region: **Region V**

State: **Wisconsin**

County: **Crawford County**

City/Community: **Soldiers Grove**

#### Key Activity/Project Information

Sector: **Public/Private Partnership**

Hazard Type: **Flooding**

Activity/Project Type: **Flood-proofing; Flood Control; Relocation**

Activity/Project Start Date: **08/1978**

Activity/Project End Date: **07/1983**

Funding Source: **Local Sources; State sources; Other Federal Agencies (OFA)**

#### Activity/Project Economic Analysis

Cost: **\$6,000,000.00 (Estimated)**

## Activity/Project Disaster Information

Mitigation Resulted From Federal Disaster? **Yes**

Federal Disaster #: **559 , 07/07/1978**

Federal Disaster Year: **1978**

Value Tested By Disaster? **Yes**

Tested By Federal Disaster #: **1719 , 08/26/2007**

Repetitive Loss Property? **Yes**

## Reference URLs

Reference URL 1: <http://www.fema.gov/government/grant/hmgp/index.shtm>

Reference URL 2: <http://www.soldiersgrove.com/>

## Main Points

- August 2007 flood reinforced the fact that moving the Village of Soldiers Grove years earlier was beneficial. A nearby town, Gays Mills, did not fare as well.
- After much debate, the Village of Soldiers Grove received the funding necessary to move, which was completed in 1983.
- In 1979, 4 years move the move was complete, the village wanted to "help the US reduce its dependency on foreign oil" so the village incorporated solar heating in the new buildings, subsequently dubbed Solar Village.
- Since the buildings have solar heating they are insulated a lot better. If there is a good day of sun, you get three days of heat.
- It took the whole area a while to get use to the solar look. In the old town people would drive down town, park their cars and watch the people on Wednesday and Saturday nights walk up and down the streets. Here it's more like a shopping mall, you have to stop here, get in the car and drive over to the next place.
- Overall, the move with the addition of the solar heat, has resulted in moderate population growth, prettymuch saving the community.



Soldiers Grove 1951 Flood



John Young, a Soldiers Grove merchant since 1960



Soldiers Grove engulfed by 1978 floodwaters



Solar Village established in 1983